

=====

Sequence Listing could not be accepted due to errors.  
See attached Validation Report.  
If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).  
Reviewer: Durreshwar Anjum  
Timestamp: Tue Sep 25 11:31:40 EDT 2007  
=====

\*\*\*\*\*

Reviewer Comments:

?g  
??  
??` Y bjbj? 86?# 2 ?? ?\$\$V%V%V% Q?Q?Q  
"R"R 8R8R8R S S SKi MiMiMiMiMiMi\$0kh ?m~qi V% S S S S Sqi\$8R8Ri ?T?T?T S|8RV%  
SKi?T?T? ?c 4%"V% e8R R ? ?Q?S?"qg ?i0n Tj nD e nV%!eP ?T S S Sqiqi?T S S  
S<sup>3 3 3</sup>?Q<sup>3 3 3</sup>?Qj%D?%, \$\$\$? SEQUENCE LISTING

Rejected, because this Non-Ascii characters appears the above headings  
from <110> to <160> are missing.

missing <210> numeric identifier because of Non-Ascii character( ? <210>  
1)

1

(continued?)

please delete this end of file text which shows below the seq Id 8.

\*\*\*\*\*

Application No: 10578501

Version No: 1.0

Input Set:

Output Set:

Started: 2007-09-12 13:26:39.613

Finished: 2007-09-12 13:26:46.378

Elapsed: 0 hr(s) 0 min(s) 6 sec(s) 765 ms

Total Warnings: 933

Total Errors: 269

No. of SeqIDs Defined: 8

Actual SeqID Count: 8

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 250 SEQID(8)
E 355	Empty lines found between the amino acid numbering and the
E 321	No. of Bases conflict, this line has no nucleotides SEQID (8)
W 112	Upper case found in data; Found at position(1046) SeqId(8)
E 259	Found undefined lettercode; POS (1050) SEQID(8)
E 259	Found undefined lettercode; POS (1051) SEQID(8)
W 112	Upper case found in data; Found at position(1051) SeqId(8)
W 112	Upper case found in data; Found at position(1052) SeqId(8)
W 112	Upper case found in data; Found at position(1053) SeqId(8)
W 112	Upper case found in data; Found at position(1054) SeqId(8)
E 259	Found undefined lettercode; POS (1056) SEQID(8)
E 259	Found undefined lettercode; POS (1057) SEQID(8)
E 259	Found undefined lettercode; POS (1058) SEQID(8)
E 259	Found undefined lettercode; POS (1059) SEQID(8)

**Input Set:**

**Output Set:**

**Started:** 2007-09-12 13:26:39.613  
**Finished:** 2007-09-12 13:26:46.378  
**Elapsed:** 0 hr(s) 0 min(s) 6 sec(s) 765 ms  
**Total Warnings:** 933  
**Total Errors:** 269  
**No. of SeqIDs Defined:** 8  
**Actual SeqID Count:** 8

Error code	Error Description
E 259	Found undefined lettercode; POS (1060) SEQID(8)
E 254	The total number of bases conflicts with running total, Input: 4, Calculated : 1060 SEQID(8)
W 112	Upper case found in data; Found at position(1118) SEQID(8)
W 112	Upper case found in data; Found at position(1121) SEQID(8)
W 112	Upper case found in data; Found at position(1124) SEQID(8)
W 112	Upper case found in data; Found at position(1127) SEQID(8)
W 112	Upper case found in data; Found at position(1130) SEQID(8)
W 112	Upper case found in data; Found at position(1133) SEQID(8)
W 112	Upper case found in data; Found at position(1136) SEQID(8)
W 112	Upper case found in data; Found at position(1139) SEQID(8)
W 112	Upper case found in data; Found at position(1142) SEQID(8)
W 112	Upper case found in data; Found at position(1145) SEQID(8)
W 112	Upper case found in data; Found at position(1148) SEQID(8)
W 112	Upper case found in data; Found at position(1151) SEQID(8)
W 112	Upper case found in data; Found at position(1268) SEQID(8)
W 112	Upper case found in data; Found at position(1269) SEQID(8)
W 112	Upper case found in data; Found at position(1272) SEQID(8) This error has occurred more than 20 times, will not be displayed
E 342	'n' position not defined found at POS: 1296 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 1574 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 1575 SEQID(8)

**Input Set:**

**Output Set:**

**Started:** 2007-09-12 13:26:39.613  
**Finished:** 2007-09-12 13:26:46.378  
**Elapsed:** 0 hr(s) 0 min(s) 6 sec(s) 765 ms  
**Total Warnings:** 933  
**Total Errors:** 269  
**No. of SeqIDs Defined:** 8  
**Actual SeqID Count:** 8

Error code	Error Description
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 1576 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 1577 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 1578 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 1599 SEQID(8)
E 342	'n' position not defined found at POS: 2849 SEQID(8)
E 342	'n' position not defined found at POS: 2923 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 2950 SEQID(8)
E 342	'n' position not defined found at POS: 2996 SEQID(8)
E 342	'n' position not defined found at POS: 3069 SEQID(8)
E 342	'n' position not defined found at POS: 3128 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 3144 SEQID(8)
E 342	'n' position not defined found at POS: 3186 SEQID(8)
E 342	'n' position not defined found at POS: 3246 SEQID(8)
E 342	'n' position not defined found at POS: 3298 SEQID(8)
E 342	'n' position not defined found at POS: 3353 SEQID(8)
E 342	'n' position not defined found at POS: 3441 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 3500 SEQID(8)
E 342	'n' position not defined found at POS: 3745 SEQID(8)
E 342	'n' position not defined found at POS: 3751 SEQID(8)

**Input Set:**

**Output Set:**

**Started:** 2007-09-12 13:26:39.613  
**Finished:** 2007-09-12 13:26:46.378  
**Elapsed:** 0 hr(s) 0 min(s) 6 sec(s) 765 ms  
**Total Warnings:** 933  
**Total Errors:** 269  
**No. of SeqIDs Defined:** 8  
**Actual SeqID Count:** 8

Error code	Error Description
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 3756 SEQID(8)
E 342	'n' position not defined found at POS: 3940 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 4009 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 4053 SEQID(8)
E 342	'n' position not defined found at POS: 4170 SEQID(8)
E 342	'n' position not defined found at POS: 4220 SEQID(8)
E 342	'n' position not defined found at POS: 4332 SEQID(8)
E 342	'n' position not defined found at POS: 4338 SEQID(8)
E 342	'n' position not defined found at POS: 4404 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 4406 SEQID(8)
E 342	'n' position not defined found at POS: 4497 SEQID(8) This error has occurred more than 20 times, will not be displayed
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 5001 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 5141 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 5245 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 5287 SEQID(8)
E 254	The total number of bases conflicts with running total Input: 0, Calculated : 5324 SEQID(8) This error has occurred more than 20 times, will not be displayed
E 253	The number of bases differs from <211> Input: 1046 Calculated:25454 SEQID (8)



<210> 1  
<211> 24  
<212> PRT  
<213> Arabidopsis thaliana

<400> 1  
Met Lys Ile Met Met Met Ile Lys Leu Cys Phe Phe Ser Met Ser Leu  
1 5 10 15  
  
Ile Cys Ile Ala Pro Ala Asp Ala  
20

<210> 2  
<211> 24  
<212> PRT  
<213> Unknown  
<220>

<223> ER signal sequence

<400> 2  
Met Ala Ala Ser His Gly Asn Ala Ile Phe Val Leu Leu Leu Cys Thr  
1 5 10 15  
  
Leu Phe Leu Pro Ser Leu Ala Cys  
20

<210> 3  
<211> 24  
<212> PRT  
<213> Unknown  
<220>  
<223> ER signal sequence

<400> 3  
Met Ala Ala Arg Ile Gly Ile Phe Ser Val Phe Val Ala Val Leu Leu  
1 5 10 15  
  
Ser Ile Ser Ala Phe Ser Ser Ala  
20

<210> 4  
<211> 12  
<212> PRT  
<213> Unknown  
<220>  
<223> ER-plastid targeting sequence

<400> 4  
Lys Lys Glu Thr Gly Asn Lys Lys Lys Lys Pro Asn  
1 5 10

<210> 5



<211> 12  
 <212> PRT  
 <213> Unknown  
 <220>  
 <223> ER-plastid targeting sequence  
  
 <400> 5  
 Arg Phe Trp Gly Lys Lys Lys Arg Arg Ser Ser Pro  
 1 5 10  
  
 <210> 6  
 <211> 11  
 <212> PRT  
 <213> Unknown  
 <220>  
 <223> ER-plastid targeting sequence  
  
 <400> 6  
 Thr Gly Lys Lys Lys Lys Lys Thr Tyr Leu Pro  
 1 5 10  
  
 <210> 7  
 <211> 284  
 <212> PRT  
 <213> Arabidopsis thaliana  
  
 <400> 7  
 Met Lys Ile Met Met Met Ile Lys Leu Cys Phe Phe Ser Met Ser Leu  
 1 5 10 15  
  
 Ile Cys Ile Ala Pro Ala Asp Ala Gln Thr Glu Gly Val Val Phe Gly  
 20 25 30  
  
 Tyr Lys Gly Lys Asn Gly Pro Asn Gln Trp Gly His Leu Asn Pro His  
 35 40 45  
  
 Phe Thr Thr Cys Ala Val Gly Lys Leu Gln Ser Pro Ile Asp Ile Gln  
 50 55 60  
  
 Arg Arg Gln Ile Phe Tyr Asn His Lys Leu Asn Ser Ile His Arg Glu  
 65 70 75 80  
  
 Tyr Tyr Phe Thr Asn Ala Thr Leu Val Asn His Val Cys Asn Val Ala  
 85 90 95  
  
 Met Phe Phe Gly Glu Gly Ala Gly Asp Val Ile Ile Glu Asn Lys Asn  
 100 105 110  
  
 Tyr Thr Leu Leu Gln Met His Trp His Thr Pro Ser Glu His His Leu  
 115 120 125  
  
 His Gly Val Gln Tyr Ala Ala Glu Leu His Met Val His Gln Ala Lys  
 130 135 140  
  
 Asp Gly Ser Phe Ala Val Val Ala Ser Leu Phe Lys Ile Gly Thr Glu

145	150	155	160
Glu Pro Phe Leu Ser Gln Met Lys Glu Lys Leu Val Lys Leu Lys Glu			
165	170	175	
Glu Arg Leu Lys Gly Asn His Thr Ala Gln Val Glu Val Gly Arg Ile			
180	185	190	
Asp Thr Arg His Ile Glu Arg Lys Thr Arg Lys Tyr Tyr Arg Tyr Ile			
195	200	205	
Gly Ser Leu Thr Thr Pro Pro Cys Ser Glu Asn Val Ser Trp Thr Ile			
210	215	220	
Leu Gly Lys Val Arg Ser Met Ser Lys Glu Gln Val Glu Leu Leu Arg			
225	230	235	240
Ser Pro Leu Asp Thr Ser Phe Lys Asn Asn Ser Arg Pro Cys Gln Pro			
245	250	255	
Leu Asn Gly Arg Arg Val Glu Met Phe His Asp His Glu Arg Val Asp			
260	265	270	
Lys Lys Glu Thr Gly Asn Lys Lys Lys Lys Pro Asn			
275	280		

<210> 8  
 <211> 1046  
 <212> DNA  
 <213> Arabidopsis thaliana

<400> 8	
atgcagtaat ctgataaaac cctccacaga gatttccaac aaaacaggaa ctaaaacaca	60
agatgaagat tatgatgatg attaagctct gcttcttctc catgtccctc atctgcattg	120
cacctgcaga tgctcagaca gaaggagtag tgtttggata taaaggcaaa aatggaccaa	180
accaatgggg acacttaaac cctcacttca ccacatgcgc ggtcggtaaa ttgcaatctc	240
caattgatat	
tcaaaggagg caaatatattt acaaccacaa attgaattca atacaccgtg	300
aatactactt cacaacgca acactagtga accacgtctg taatgttgcc atgttcttcg	360
gggagggagc aggagatgtg ataatagaaa acaagaacta taccttactg caaatgcatt	420
ggcacactcc ttctgaacat cacctccatg gagtccaata tgcagctgag ctgcacatgg	480
tacaccaagc aaaagatgga agctttgctg tgggtggcaag tctcttcaaa atcggcactg	540
aagagccttt cctctctcag atgaaggaga aattggtgaa gctaaaggaa gagagactca	600
aagggaacca cacagcacia gtggaagtag gaagaatcga cacaagacac attgaacgta	660
agactcgaaa gtactacaga tacattgggt cactcactac tcctccttgc tccgagaacg	720

1

Page PAGE 1 of 4

[illegible]



É ñ Index 7  
? à ^à 2 2  
É ñ Index 8  
@ ° ^° 2 2  
É ñ Index 9  
A ^ @! @ É ñ  
Index Heading B  
5 \ ^J l-ñÿ2 l É ñ  
Macro Text"C  
Æ à À ` @  
à OJ QJ ^J \_H mH sH tH X, X É ñ Table of Authorities D Đ 0ý ¢Đ `0ý<# < É ñ Table of Figures  
5 \ ^J : :  
É ñ TOC 1 G Đ 0ý ¢Đ `0ý: :  
É ñ TOC 2 H 0ý ¢^ `0ý: :  
É ñ TOC 3 I p 0ý ¢^p `0ý: :  
É ñ TOC 4 J @ 0ý ¢^@ `0ý: :  
É ñ TOC 5 K 0ý ¢^ `0ý: :  
É ñ TOC 6 L à 0ý ¢^à `0ý: :  
É ñ TOC 7 M ° 0ý ¢^° `0ý: :  
É ñ TOC 8 N 0ý ¢^ `0ý: :  
É ñ TOC 9 O P 0ý ¢^P `0ýDT D É ñ  
Block Text P ¢] ^ HP H l # Body Text 2,bt2 Q Đ dà `Đ TM " T ^l # Body Text First Indent P  
nt,bi S Đ ¢^Đ ZN B Z l # Body Text First Indent 2 T Đ dà `Đ Vp R V l # Body Text Flush Left 2,b12  
t Flush Left,b1 V ¢VR r V l # Body Text Indent 2,bi2 W Đ dà ^Đ Jp J l #  
Quote Text,qt X ¢] ^ @J @ l # Subtitle Y \$ \$ ¢@& a\$ ^J ` \$ ¢ `